



1. Description of Watershed Activity:

The Metropolitan District Commission, Division of Watershed Management (MDC/DWM), one of the largest land owners in central Massachusetts, has historically allowed some use of its water supply land for passive recreation and educational research activities. For example, hiking is allowed, with restrictions, on over 100,000 acres of MDC/DWM land. The Division's Watershed Protection Plans have ranked recreation as a moderate threat to water quality.

The MDC/DWM controls recreational use of its property through stringent policies, based on federal and state regulations, which limit access to watershed resources and place restrictions on all authorized activities. 350 CMR 11.09 gives the MDC regulatory jurisdiction of its watershed land and water, and authority to close portions of the watershed system, when necessary, to protect land and water resources from degradation. Management plans for recreational use of MDC/DWM watershed lands are required under State law, Chapter 372 of the Acts of 1984.

The Division's Public Access Management Plans address the specific needs for each of the watersheds that comprise the metropolitan Boston drinking water

system. The Quabbin Reservoir, Ware River and Wachusett Reservoir watersheds provide the drinking water for 2.5 million people in the Commonwealth (see Figure 1). The Sudbury Reservoir is the reserve water supply for metropolitan Boston. Public Access Management Plans provide detailed protection strategies devised to minimize risks to water quality from recreational use of MDC/DWM property. Certain recreational activities are allowed at designated areas in each watershed, however there are general restrictions that apply to all authorized activities. High-risk activities, such as swimming in the reservoirs, are strictly prohibited. Table 1 lists many of the public access restrictions on MDC's protected watershed lands and water. For more detailed information on the designated times and locations for authorized uses, visit the MDC/DWM website: www.state.ma.us/mdc/pacc.htm.

2. Pollutants of Concern:

The introduction of microbiological pathogens, such as *Cryptosporidium*, *Giardia*, and other bacteria, viruses and parasites, poses one of the most serious threats to water quality, and thus to public health. Both humans and animals can serve as hosts to these pathogens. MDC/DWM is particularly concerned by the possible contamination of the drinking water supply from improper disposal of fecal waste from humans, dogs, horses, and other domestic animals on its water supply lands.

Other impacts from public access that can threaten water quality include forest fires, fuel spills from motorized vehicles, and soil erosion (from motor vehicles, horseback riding, mountain biking, foot trail use, and at picnic and fishing sites). The seriousness of these threats is typically related to: the proximity of an activity to the shoreline, reservoir intakes, or reservoir tributaries; the magnitude and intensity of an activity; the hydrodynamics of the reservoirs; as well as the slope and soil type of the land.



The Old Stone Church, on Route 140 in West Boylston at the Wachusett Reservoir, is a popular place for passive outdoor leisure activities.

3. Control Strategy:

Implementation of DWM's public access policies serve as one of the first lines of defense to prevent contamination of source water from recreational use. "Protection Zones" have been established to prohibit all public access within a specific distance of all intake structures (see Figure 1). DWM specifically prohibits recreational activities that pose the greatest threats to water quality, such as swimming and off-road vehicles.

cess at all intake structures, where source water enters the distribution system: two miles on either side of the shoreline at the Cosgrove intake on Wachusett Reservoir; one mile surrounding the Quabbin Aqueduct and Chicopee Valley Aqueduct intakes on Quabbin Reservoir; and over one mile around the intake on the Ware River. Body contact with the reservoirs is strictly prohibited and rigorously enforced.

Table 1: Summary of Public Access Restrictions on MDC/DWM Property

Activity	Wachusett Reservoir	Quabbin Reservoir	Ware River
Off Road Vehicles	⊘	⊘	⊘
Snowmobiles	⊘	⊘	✓
Bicycles	✓	✓	✓
Walking/Hiking	✓	✓	✓
Hunting (w/ required permit)	✓	✓	✓
Cross-Country Skiing	✓	✓	✓
Reservoir Ice Access	⊘	⊘	NA
Other Ice Access	⊘	✓	✓
Fishing	✓	✓	✓
Motorized Boating	✓ *	✓	✓
Non-Motorized Boating	✓ *	✓	✓
Horse Back Riding	⊘	⊘	✓
Camping	⊘	⊘	✓
Dog Walking	⊘	⊘	✓
Swimming	⊘	⊘	⊘

NOTES:

- ✓ - Authorized activities with restrictions on time and location
- ⊘ - Prohibited activity
- * - Boating is not allowed directly on the Wachusett Reservoir, but is allowed on other parts of the watershed

The general protection strategy for all MDC watershed land is based on the use of "Access Zones" (see maps on Page 4) which prohibit public access at reservoir intake structures and allows very limited access along reservoir shoreline areas. Increased activity and access is permitted in designated areas located further away from the reservoir and intake structures.

Regardless of type or location, all authorized activities are limited, controlled, and monitored by the agency.

Recreational use patterns differ greatly among the MDC/DWM watersheds. Factors contributing to these differences include the degree of public access historically allowed by DWM, the proximity of visitors to the water, and the suitability of DWM land for passive recreational activities. Table 1 lists some of the activities allowed and restrictions at each of the three active watersheds. DWM bans shoreline ac-

4. Public Access Management Program Status:

MDC/DWM has adopted public access management plans for Wachusett Reservoir watershed (1996), Quabbin Reservoir watershed (1998) the Ware River watershed (1999), and the Sudbury Reservoir watershed (1994). During the planning process, DWM conducts an inventory of recreation related threats in the watershed and prioritizes its policies and maintenance activities to mitigate these threats. MDC/DWM's current policies include: increasing the level

Table 2: Changes to MDC/DWM Recreation Management in the 1990s.

Activity or Program	Wachusett Reservoir	Quabbin Reservoir	Ware River
Watershed Ranger Program	6 rangers hired	6 rangers hired to serve both areas	
Intake Protection Zone	No trespassing zone increased	No trespassing zone increased around all intakes	Intake protection zone established
Snowmobile Access	Prohibited on all MDC owned land		Limited to 22 miles in designated areas
Horse Trail Access	Prohibited on all MDC owned land		Limited to 38 miles in designated areas
Bicycle Access	Limited to 8.5 miles of trails (permit required)	Limited to 18.5 miles on designated roads	Limited to 34.7 miles on designated roads
Sanitary Facilities	Seasonal Installation at 3 locations	Seasonal installation at 5 locations	Seasonal installation at 2 locations
Hunting	MDC permit required	MDC permit and orientation required	Allowed with general restrictions

of protection at reservoir intakes; reducing the amount of recreational use along reservoir shorelines where it can not be adequately controlled; maintaining a watershed ranger program to monitor public activity and reduce trespass activity; implementing permit programs for specific activities; installing sanitary facilities where need occurs; inventorying site degradation and enacting best management practices to protect water re-

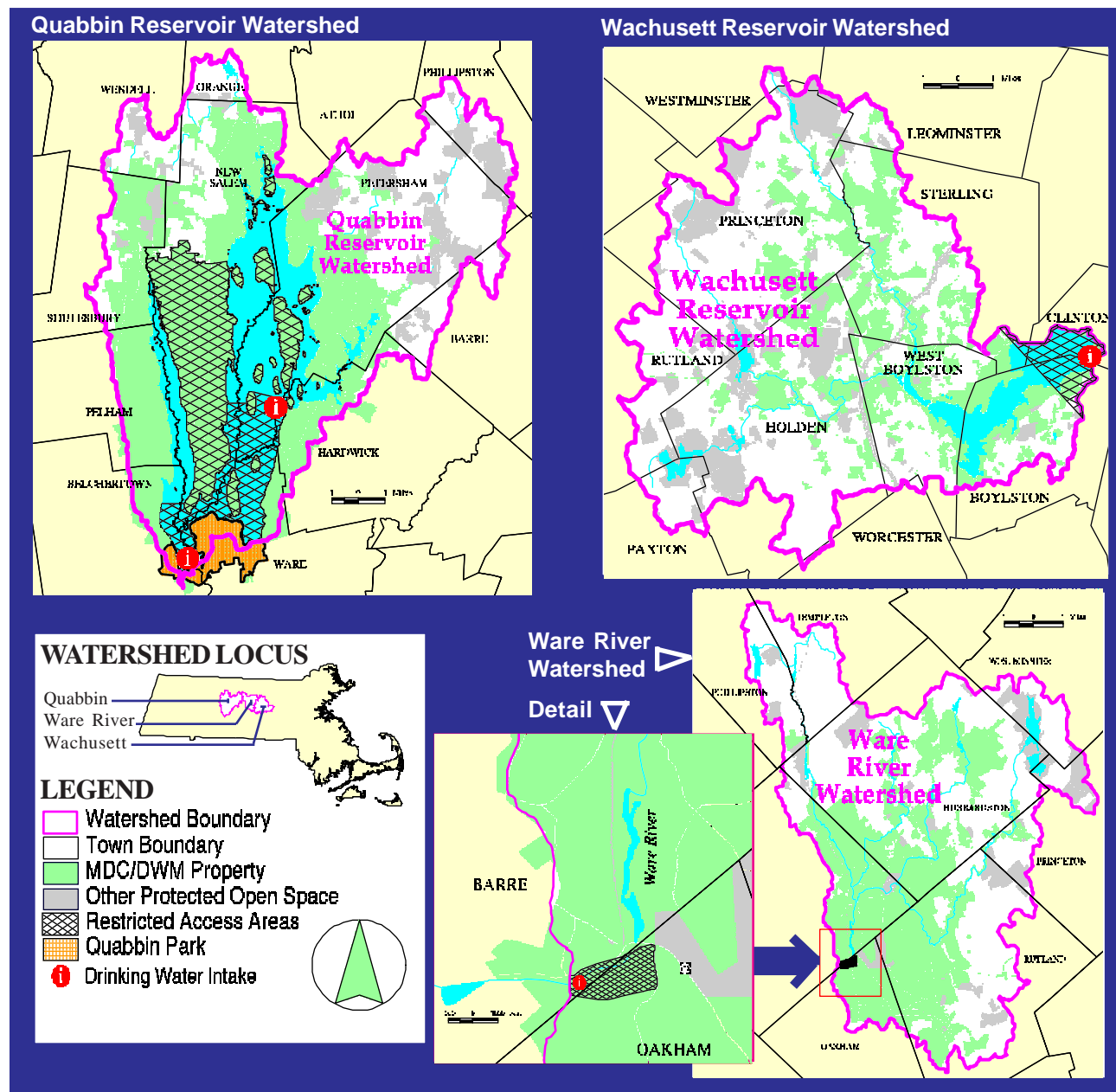
sources; developing better signage to clarify rules and regulations; improving education programs; and providing more outreach programs to watershed communities. Table 2 outlines some key revisions made during the 1990's to reflect the changes in recreational demands and DWM's increased knowledge of how these activities impact water quality.

While the Enfield Lookout, at the Quabbin Reservoir, is an ideal location for bird watching, recent increases in the number of visitors has resulted in more activities that potentially threaten the quality of the water supply, such as greater amounts of litter and illegal tree girdling.



All MDC/DWM Public Access Plans are reviewed on a regular basis and revised as needed. Updating of the Wachusett Watershed Public Access Management Plan begins in 2001. For more information about the Wachusett and Sudbury Reservoir Watersheds, please contact the MDC/DWM Rangers at (978) 365-3800. Contact either the Quabbin Visitor's Center at (413) 323-7221 or MDC/DWM Rangers at (413) 323-0191 for the Quabbin Reservoir and Ware River Watersheds.

Figure 1: Public Access Management on MDC/DWM Property



For More Information (Reference Number FS01.02) Contact:

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